(11)

EP 1 004 583 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 14.06.2000 Bulletin 2000/24

(51) Int Cl.7: C07D 487/04

- (43) Date of publication A2: 31.05.2000 Bulletin 2000/22
- (21) Application number: 99309203.0
- (22) Date of filing: 18.11.1999
- (84) Designated Contracting States:

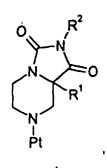
 AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU

 MC NL PT SE

 Designated Extension States:

 AL LT LV MK RO SI
- (30) Priority: 23.11.1998 US 109524 P
- (71) Applicant: Pfizer Products Inc. Groton, Connecticut 06340 (US)

- (72) Inventors:
 - Chiu, Charles Kwok-Fung
 Guilford, Connecticut 06437 (US)
 - Griffith, David Andrew
 Old Saybrook, Connecticut 06475 (US)
- (74) Representative:
 Simpson, Alison Elizabeth Fraser et al
 Urquhart-Dykes & Lord,
 30 Welbeck Street
 London W1M 7PG (GB)
- (54) Process and hydantoin intermediates for the synthesis of growth hormone secretagogues
- (57) This invention relates to a process for preparing compounds of the Formula



wherein R¹, R² and Pt are as defined in the specification, which are intermediates in the synthesis of certain growth hormone secretagogue compounds. This invention further relates to processes for preparing the growth hormone secretagogues. The invention also relates to the compound of Formula I wherein R¹ is H, R² is 2,2,2-trifluoromethyl and Pt is Boc.



EUROPEAN SEARCH REPORT

Application Number EP 99 30 9203

	DOCUMENTS CONSID	ERED TO BE RELEVANT	,		
Category	Citation of document with in of relevant pass	ndication, where appropriate, ages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (InLCL7)	
P,X, D	WO 98 58947 A (CARP; GRIFFITH DAVID AND LE) 30 December 199 * see p.115, formul * the whole documen	1-40	C07D487/04		
X	HELV.CHIM.ACTA., vol. 272, 1962, pages 2383-2402, XP000882432 BASEL * see page 2388, last rection * * the whole document *				
X	CAPUANO, L. ET AL.: Brückenkopf-Stickst Struktur" CHEM.BER., vol. 103, 1970, pag XP000882488 WEINHEIM * see page 2395, re paragraph, first se 6-9 * * the whole documen	1-10	TECHNICAL RELDS SEARCHED (InLCL7)		
X	KHANDELWAL,Y. ET AL CNS: Part XXXV - S Imidazo'1,5-a!pyraz Pyrazino'1,2-a!pyra INDIAN J.CHEM., vol. 16B, November 1015-1018, XP000882 * see page 1015, ex * the whole documen	1-10			
	The present search report has	been drawn up for all claims	1		
	Place of search	Date of completion of the search	<u>-</u>	Examiner	
	MUNICH	28 March 2000	Ste	ellmach, J	
X : par Y : par doc A : tecl O : nor	CATEGORY OF CITED DOCUMENTS doubtry relevant if taken atone doubtry relevant if combined with and ument of the same category mological background —written disclosure mediate document	E : earlier patent oc after the filing d	its in the application for other reasons	esned on, or	



EUROPEAN SEARCH REPORT

Application Number EP 99 30 9203

		ERED TO BE RELEVANT			
Category	Citation of document with of relevant pass	ndication, where appropriate, sages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (InLCL7)	
X	IWATA,K. ET AL.: 'Hydantoin Derivativ J.HETEROCYCLIC.CHEN vol. 15, no. 7, Oct pages 1231-1234, XF ALBUQUERQUE * the whole documer	ves " 1., cober 1978 (1978-10), 000882414	3-10		
Y	LOPEZ,C.A. ET AL.: Hydantoins" ADV.HETEROCYCL.CHEP vol. 38, 1985, page NEW YORK * see pages 180-182 * the whole documer	1., es 178-228, XP002134100 2, paragraph C +	3-10	·	
Y	19 September 1989 (US 4 868 061 A (CESA MARK C ET AL) 19 September 1989 (1989-09-19) * the whole document *			
Y	US 4 746 755 A (PAU 24 May 1988 (1988-0 * the whole documen		3-10	TECHNICAL RELDS SEARCHED (INLCLT)	
K,D	(US); JARDINE DASIL 10 July 1997 (1997-	ula 29,25,28; page 110, page 116, pages nes 19-26 *			
	The present search report has	been drawn up for all claims		÷	
	Place of search	Date of completion of the search		Examiner	
	MUNICH	28 March 2000	Ste	llmach, J	
CATEGORY OF CITED DOCUMENTS T: theory or p E: earlier pate X: particularly relevant if taken alone After the fill Y: particularly relevant if combined with another document of the same category L: document L: document			ciple underlying the invention document, but published on, or		

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 99 30 9203

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

28-03-2000

WO 9858947 A 30-12-1998 AU 7445498 A 04-01-1999 US 4868061 A 19-09-1989 NONE US 4746755 A 24-05-1988 NONE WO 9724369 A 10-07-1997 AP 756 A 06-08-1999 BG 102533 A 30-09-1999 CA 2241725 A 10-07-1997 CC 9801995 A 12-05-1999 EP 0869968 A 14-10-1999 HR 960618 A 30-04-1998 HU 9901246 A 30-08-1999 JP 11501945 T 16-02-1999 NO 982991 A 26-08-1998 PL 327634 A 21-12-1998	Patent document cited in search report	t	Publication date		Patent family member(s)	Publication date
US 4746755 A 24-05-1988 NONE WO 9724369 A 10-07-1997 AP 756 A 06-08-1999 AU 7585096 A 28-07-1999 BG 102533 A 30-09-1999 CA 2241725 A 10-07-1999 CZ 9801995 A 12-05-1999 EP 0869968 A 14-10-1999 HR 960618 A 30-04-1999 HU 9901246 A 30-08-1999 JP 11501945 T 16-02-1999 NO 982991 A 26-08-1999	WO 9858947	A	30-12-1998			
WO 9724369 A 10-07-1997 AP 756 A 06-08-1999 AU 7585096 A 28-07-1999 BG 102533 A 30-09-1999 BR 9612465 A 13-07-1999 CA 2241725 A 10-07-1999 CZ 9801995 A 12-05-1999 EP 0869968 A 14-10-1998 HR 960618 A 30-04-1998 HU 9901246 A 30-08-1999 JP 11501945 T 16-02-1999 NO 982991 A 26-08-1999	US 4868061	A	19-09-1989	NONE		
AU 7585096 A 28-07-1997 BG 102533 A 30-09-1999 BR 9612465 A 13-07-1997 CA 2241725 A 10-07-1997 CZ 9801995 A 12-05-1999 EP 0869968 A 14-10-1998 HR 960618 A 30-04-1998 HU 9901246 A 30-08-1999 JP 11501945 T 16-02-1999 NO 982991 A 26-08-1998	US 4746755	Α	24-05-1988	NONE		
	WO 9724369	A	10-07-1997	AU BG BR CZ EP HR JP NO	7585096 A 102533 A 9612465 A 2241725 A 9801995 A 0869968 A 960618 A 9901246 A 11501945 T 982991 A	28-07-199 30-09-1999 13-07-1999 10-07-1999 12-05-1999 14-10-1999 30-04-1999 16-02-1999 26-08-1999
					•	
	•					
					•	

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82